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NEWS
FROM YOUR MUSEUM

Know your Museum better

THE ROYAL ONTARIO MUSEUM

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PETROLEUM

A magic word to-day, as any country at war must appreciate. It furnishes power to drive machines, motor vehicles, ships, locomotives, aeroplanes, tanks, tractors. It supplies fuel for factories, lubrication for the wheels of our machines, asphalt for roads, kerosene, and all sorts of other byproducts used in our homes.

It seems remarkable that any single substance, although known for thousands of years, could within half a century become such a dominating natural resource. The ancients considered petroleum to have medicinal properties and used asphalt for embalming. They obtained the petroleum from oil seeps where it escaped to the surface through cracks in the rocks. At Oil Springs, Ontario, the early settlers found oil oozing from the ground.

Underground mining for oil is more dangerous than mining for coal, because the natural gas which is nearly always associated with petroleum is suffocating to animals and also very explosive. Accounts have been given of the digging of wells by hand in Burma. A native miner working in one of these wells would have to be hauled to the surface every few minutes for air. A member of the man's family usually worked the windlass, because a disinterested native would go to sleep and let the miner perish. In Alsace, France, where they mine for oil, the greatest care must be exercised at all times, for a spark from a pick striking the rock might cause an explosion.

Petroleum originates from certain low forms of salt water plants and, to some extent, from the bodies of the countless animals that live in the sea. Natural distillation, under the control of geological processes, produces the oil and gas which collect in "pools" in porous rocks. The pressure is sometimes so great that a "gusher" well has been known to produce over 200,000 barrels of oil a day.

The Petrolia field in Ontario was one of the earliest in the world to produce much oil. Now, although there are oil fields in Ontario, New Brunswick, Alberta, the Northwest Territories, and a few other western areas, Canada is largely dependent on foreign sources. It is fortunate for us in this war that the United States produces sixty per cent of the world's output and can supply an even greater proportion if necessary. There is also promise of a very large supply to be obtained by distilling the McMurray bituminous sands of Alberta.

A great variety of oils and models of oil wells, one of which pumps oil, may be seen in the Royal Ontario Museum.

Open WEEK DAYS except MONDAY 10 a.m. - 5 p.m.
SUNDAYS 2 p.m. - 5 p.m.

BUDDHAS

THE PROGRESS OF A BLITZKRIEG WAS SLOWER in the fourth century B.C. but Alexander the Great got as far as north-west India before he had to turn back. The Khyber Pass is the back door of India, and through it came many Greeks and Central Asian nomads, soldiers of fortune seeking their place in the sun. A great empire was built up, with Buddhism as the principal religion. The art of Gandhara, as the north-west frontier region was called, is unlike anything we would expect to find in India, and would seem much more at home in Asia Minor.

Between the second and fifth centuries A.D. many beautiful figures of Buddha were made in stone or plaster, some of which are remarkable works of art showing the influence of Greece and Rome. These majestic Buddhas can be seen in the East Indian gallery of the Royal Ontario Museum.

WEAR AMETHYST AND STAY SOBER

It was once believed that amethyst could charm away drunkenness, preserve affection, bring pleasant dreams, and even prevent attack by thieves. Rubies changed color at the approach of evil and were antidotes to poison; emerald preserved eyesight; opal brought evil. Even now, although we no longer prize the gemstones as charms and amulets, some shades of the old superstitions still linger.

What makes a gemstone valuable? Beauty, durability, and rarity. Almost all the beautiful gems we know have poor relatives. Emerald and aquamarine are lovely transparent varieties of a mineral called beryl, used commercially for the production of beryllium. Ruby and sapphire are varieties of corundum, used in different forms as abrasives. Diamond, the hardest substance known, is always of value, although not always as a gem. Its chemical composition is exactly that of the graphite or "lead" in your pencil, pure carbon. Many of the less precious stones, amethyst, rose quartz, rock crystal, agate, onyx, bloodstone, jasper, carnelian, are varieties of quartz, the most plentiful mineral in existence.

Color? Sapphires may be yellow, topaz blue, garnet green. Because of the fact that the color is usually due to minute amounts of impurities, it may vary widely even in the same species.

In the Royal Ontario Museum there are many cut stones, precious, semi-precious, and ornamental, well known and rare, Canadian and foreign. There is also an exhibit of synthetic gem material as it comes from the furnace, and as it looks after cutting. Especially interesting are the ornaments and ring stones cut from Canadian material, showing the prospects of a possible new industry.